## SEQUENCE LISTING

<110				Mark Igo:												
<120		TAT] NDRC			AND C	GENON	MIC S	STRU	CTURE	E OF	HERO	3 - 2	A LOI	1G Q	r	
<130	> 23	323-1	L64													
<140: <141:																
<150: <151:			-											~		
<150:														•		
<150:						•								-	,	
<160	> 11	16														
<170	> Pa	tent	:In V	Jer.	2.0											
<210: <211: <212: <213:	> 34 > DN	IA	sapie	ens												
<220: <221: <222:	> CI		(3477	7)												
<400																
atg o Met 1	ccg Pro	gtg Val	Arg	agg Arg 5	ggc	cac His	gtc Val	gcg Ala	ecg Pro 10	cag Gln	aac Asn	acc Thr	ttc Phe	ctg Leu 15	gac Asp	48
acc a	atc Ile	atc Ile	cgc Arg 20	aag Lys	ttt Phe	gag Glu	ggc Gly	cag Gln 25	agc Ser	cgt Arg	aag Lys	ttc Phe	atc Ile 30	atc Ile	gcc Ala	96
aac g Asn	gct Ala	cgg Arg 35	gtg Val	gag Glu	aac Asn	tgc Cys	gcc Ala 40	gtc Val	atc Ile	tac Tyr	tgc Cys	aac Asn 45	gac Asp	ggc Gly	ttc Phe	144
tgc ( Cys (	gag Glu 50	ctg Leu	tgc Cys	ggc Gly	tac Tyr	tcg Ser 55	cgg Arg	gcc Ala	gag Glu	gtg Val	atg Met 60	cag Gln	cga Arg	ccc Pro	tgc Cys	192
acc f Thr 6	tgc Cys	gac Asp	ttc Phe	ctg Leu	cac His 70	Gly ggg	ccg Pro	cgc Arg	acg Thr	cag Gln 75	cgc Arg	cgc Arg	gct Ala	gcc Ala	gcg Ala 80	240
cag a	atc Ile	gcg Ala	cag Gln	gca Ala 85	ctg Leu	ctg Leu	ggc Gly	gcc Ala	gag Glu 90	gag Glu	cgc Arg	aaa Lys	gtg Val	gaa Glu 95	atc Ile	288
gcc (	ttc Phe	tac Tyr	cgg Arg 100	aaa Lys	gat Asp	gly ggg	agc Ser	tgc Cys 105	ttc Phe	cta Leu	tgt Cys	ctg Leu	gtg Val 110	gat Asp	gtg Val	336

gtg Val	ccc Pro	gtg Val 115	aag Lys	aac Asn	gag Glu	gat Asp	ggg Gly 120	gct Ala	gtc Val	atc Ile	atg Met	ttc Phe 125	atc Ile	ctc Leu	aat Asn	384
ttc Phe	gag Glu 130	gtg Val	gtg Val	atg Met	gag Glu	aag Lys 135	gac Asp	atg Met	gtg Val	ggg Gly	tcc Ser 140	ccg Pro	gct Ala	cat His	gac Asp	432
acc Thr 145	aac Asn	cac His	cgg Arg	ggc Gly	ccc Pro 150	ccc Pro	acc Thr	agc Ser	tgg Trp	ctg Leu 155	gcc Ala	cca Pro	ggc Gly	cgc Arg	gcc Ala 160	480
						ctg Leu										528
						ggc										576
						gac Asp										624
tcg Ser	ctg Leu 210	gcc Ala	ctg Leu	gac Asp	gaa Glu	gtg Val 215	aca Thr	gcc Ala	atg Met	gac Asp	aac Asn 220	cac His	gtg Val	gca Ala	Gly ggg	672
						cgg Arg										720
ccc Pro	cgc Arg	agc Ser	gcg Ala	ccc Pro 245	ggc Gly	cag Gln	ctc Leu	cca Pro	tcg Ser 250	ccc Pro	cgg Arg	gcg Ala	cac His	agc Ser 255	ctc Leu	768
						tcc Ser										816
cga Arg	gaa Glu	agc Ser 275	tgc Cys	gcc Ala	agc Ser	gtg Val	cgc Arg 280	cgc Arg	gcc Ala	tcg Ser	tcg Ser	gcc Ala 285	gac Asp	gac Asp	atc Ile	864
gag Glu	gcc Ala 290	atg Met	cgc Arg	gcc Ala	ggg Gly	gtg Val 295	ctg Leu	ccc Pro	ccg Pro	cca Pro	ccg Pro 300	cgc Arg	cac His	gcc Ala	agc Ser	912
acc Thr 305	ggg Gly	gcc Ala	atg Met	cac His	cca Pro 310	ctg Leu	cgc Arg	agc Ser	ggc Gly	ttg Leu 315	ctc Ĺeu	aac Asn	tcc Ser	acc Thr	tcg Ser 320	960
						tac Tyr										1008
						ctc Leu										1056
						ata Ile										1104

												ggc Gly				1152		
ctg Leu 385	cct Pro	gag Glu	tac Tyr	aag Lys	ctg Leu 390	cag Gln	gca Ala	ccg Pro	cgc Arg	atc Ile 395	cac His	cgc Arg	tgg Trp	acc Thr	atc Ile 400	1200		
												ctc Leu				1248		
ctg Leu	gtc Val	atc Ile	tac Tyr 420	acg Thr	gct Ala	gtc Val	ttc Phe	aca Thr 425	ccc Pro	tac Tyr	tcg Ser	gct Ala	gcc Ala 430	ttc Phe	ctg Leu	1296	,	
												tgt Cys 445				1344		
tgc Cys	cag Gln 450	ccg Pro	ctg Leu	gct Ala	gtg Val	gtg Val 455	gac Asp	ctc Leu	atc Ile	gtg Val	gac Asp 460	atc Ile	atg Met	ttc Phe	att Ile	1392		
gtg Val 465	gac Asp	atc Ile	ctc Leu :	atc Ile	aac Asn 470	ttc Phe	cgc Arg	acc Thr	acc Thr	tac Tyr 475	gtc Val	aat Asn	gcc Ala	aac Asn	gag Glu 480	1440		
gag Glu	gtg Val	gtc Val	agc Ser	cac His 485	ccc Pro	ggc Gly	cgc Arg	atc Ile	gcc Ala 490	gtc Val	cac His	tac Tyr	ttc Phe	aag Lys 495	ggc Gly	1488		
tgg Trp	ttc Phe	ctc Leu	atc Ile 500	gac Asp	atg Met	gtg Val	gcc Ala	gcc Ala 505	atc Ile	ccc Pro	ttc Phe	gac Asp	ctg Leu 510	ctc Leu	atc Ile	1536		
ttc Phe	ggc Gly	tct Ser 515	ggc Gly	tct Ser	gag Glu	gag Glu	ctg Leu 520	atc Ile	ggg Gly	ctg Leu	ctg Leu	aag Lys 525	act Thr	gcg Ala	cgg Arg	1584		
												cgc Arg				1632		
tac Tyr 545	ggc Gly	gcg Ala	gcc Ala	gtg Val	ctg Leu 550	ttc Phe	ttg Leu	ctc Leu	atg Met	tgc Cys 555	acc Thr	ttt Phe	gcg Ala	ctc Leu	atc Ile 560	1680		
gcg Ala	cac His	tgg Trp	cta Leu	gcc Ala 565	tgc Cys	atc Ile	tgg Trp	tac Tyr	gcc Ala 570	atc Ile	ggc Gly	aac Asn	atg Met	gag Glu 575	cag Gln	1728		
												ctg Leu				1776		
												ccc Pro 605				1824		
												agc Ser				1872		

and the state of t

Va	tg al 25	ggc Gly	ttc Phe	ggc Gly	aac Asn	gtc Val 630	tct Ser	ccc Pro	aac Asn	acc Thr	aac Asn 635	tca Ser	gag Glu	aag Lys	atc Ile	ttc Phe 640	1920	
					atg Met 645												1968	
					gcc Ala												2016	
					atg Met												2064	
	le				ctg Leu												2112	
Ti					aac Asn												2160	
					cag Gln 725												2208	
					aaa Lys												2256	
					aag Lys												2304	
	eū '				ggg Gly												2352	
Ğ.					atc Ile												2400	
aa Ly	ag ys i	aat Asn	gac Asp	atc Ile	ttt Phe 805	Gly	gag Glu	cct Pro	ctg Leu	aac Asn 810	ctg Leu	tat Tyr	gca Ala	agg Arg	cct Pro 815	ggc Gly	2448	-
aa Ly	ag ys :	tcg Ser	aac Asn	ggg Gly 820	gat Asp	gtg Val	cgg Arg	gcc Ala	ctc Leu 825	acc Thr	tac Tyr	tgt Cys	gac Asp	cta Leu 830	cac His	aag Lys	2496	
					gac Asp												2544	
	er i				tgg Trp												2592	
Th					ccg Pro												2640	

.

		`							5							
							aag Lys									2688
aag Lys	gac Asp	acg Thr	gag Glu 900	cag Gln	cca Pro	ggg Gly	gag Glu	gtg Val 905	tcg Ser	gcc Ala	ttg Leu	ggg Gly	ccg Pro 910	ggc Gly	cgg Arg	2736
							cgg Arg 920									2784
gag Glu	agc Ser 930	ccg Pro	tcc Ser	agt Ser	ggc Gly	ccc Pro 935	tcc Ser	agc Ser	cct Pro	gag <sup>.</sup> Glu	agc Ser 940	agt Ser	gag Glu	gat Asp	gag Glu	2832
							ccc Pro									2880
ccc Pro	agg Arg	ccc Pro	ccc Pro	gga Gly 965	gag Glu	ccg Pro	ccg Pro	ggt Gly	ggg Gly 970	gag Glu	ccc Pro	ctg Leu	atg Met	gag Glu 975	gac Asp	2928
							tgc 'Cys									2976
						Ser	ttc Phe 1000				Ser					3024
Гуr					Arg		ccc Pro			Thr						3072
	Pro			Ser	-		cgg Arg		Pro			_		Ğlü	_	3120
	-		Ala	_		_	cag Gln	Leu	_	_	_	~ -	Thr	_	-	3168
		Asp					ctg Leu 1					Arg				3216
	Val					Ser	gct Ala 1080				Pro					3264
Thr					Leu		ccc Pro			Pro						3312
	Āsp			Ser			tcc Ser		Phe					Glu		3360
			Āla				ccc Pro	Gln					Arg			3408

tee eta eeg gge eag etg ggg gee ete ace tee eag eee etg eac aga Ser Leu Pro Gly Gln Leu Gly Ala Leu Thr Ser Gln Pro Leu His Arg 1140 cac ggc tcg gac ccg ggc agt tag His Gly Ser Asp Pro Gly Ser 3480 1155 <210> 2 <211> 1159 <212> PRT <213> Homo sapiens Met Pro Val Arg Arg Gly His Val Ala Pro Gln Asn Thr Phe Leu Asp Thr Ile Ile Arg Lys Phe Glu Gly Gln Ser Arg Lys Phe Ile Ile Ala Asn Ala Arg Val Glu Asn Cys Ala Val Ile Tyr Cys Asn Asp Gly Phe Cys Glu Leu Cys Gly Tyr Ser Arg Ala Glu Val Met Gln Arg Pro Cys Thr Cys Asp Phe Leu His Gly Pro Arg Thr Gln Arg Arg Ala Ala Ala Gln Ile Ala Gln Ala Leu Leu Gly Ala Glu Glu Arg Lys Val Glu Ile Ala Phe Tyr Arg Lys Asp Gly Ser Cys Phe Leu Cys Leu Val Asp Val Val Pro Val Lys Asn Glu Asp Gly Ala Val Ile Met Phe Ile Leu Asn 120 Phe Glu Val Val Met Glu Lys Asp Met Val Gly Ser Pro Ala His Asp Thr Asn His Arg Gly Pro Pro Thr Ser Trp Leu Ala Pro Gly Arg Ala Lys Thr Phe Arg Leu Lys Leu Pro Ala Leu Leu Ala Leu Thr Ala Arg Glu Ser Ser Val Arg Ser Gly Gly Ala Gly Gly Ala Gly Ala Pro Gly Ala Val Val Asp Val Asp Leu Thr Pro Ala Ala Pro Ser Ser Glu 200 Ser Leu Ala Leu Asp Glu Val Thr Ala Met Asp Asn His Val Ala Gly Leu Gly Pro Ala Glu Glu Arg Arg Ala Leu Val Gly Pro Gly Ser Pro

Pro Arg Ser Ala Pro Gly Gln Leu Pro Ser Pro Arg Ala His Ser Leu

Asn Pro Asp Ala Ser Gly Ser Ser Cys Ser Leu Ala Arg Thr Arg Ser

260 265 270 Arg Glu Ser Cys Ala Ser Val Arg Arg Ala Ser Ser Ala Asp Asp Ile Glu Ala Met Arg Ala Gly Val Leu Pro Pro Pro Pro Arg His Ala Ser 295 300 Thr Gly Ala Met His Pro Leu Arg Ser Gly Leu Leu Asn Ser Thr Ser 310 Asp Ser Asp Leu Val Arg Tyr Arg Thr Ile Ser Lys Ile Pro Gln Ile 330 Thr Leu Asn Phe Val Asp Leu Lys Gly Asp Pro Phe Leu Ala Ser Pro Thr Ser Asp Arg Glu Ile Ile Ala Pro Lys Ile Lys Glu Arg Thr His 360 Asn Val Thr Glu Lys Val Thr Gln Val Leu Ser Leu Gly Ala Asp Val 375 380 Leu Pro Glu Tyr Lys Leu Gln Ala Pro Arg Ile His Arg Trp Thr Ile Leu His Tyr Ser Pro Phe Lys Ala Val Trp Asp Trp Leu Ile Leu Leu Leu Val Ile Tyr Thr Ala Val Phe Thr Pro Tyr Ser Ala Ala Phe Leu 425 Leu Lys Glu Thr Glu Glu Gly Pro Pro Ala Thr Glu Cys Gly Tyr Ala Cys Gln Pro Leu Ala Val Val Asp Leu Ile Val Asp Ile Met Phe Ile 455 Val Asp Ile Leu Ile Asn Phe Arg Thr Thr Tyr Val Asn Ala Asn Glu 470 Glu Val Val Ser His Pro Gly Arg Ile Ala Val His Tyr Phe Lys Gly 490 Trp Phe Leu Ile Asp Met Val Ala Ala Ile Pro Phe Asp Leu İle 500 505 Phe Gly Ser Gly Ser Glu Glu Leu Ile Gly Leu Leu Lys Thr Ala Arg Leu Leu Arg Leu Val Arg Val Ala Arg Lys Leu Asp Arg Tyr Ser Glu 535 Tyr Gly Ala Ala Val Leu Phe Leu Leu Met Cys Thr Phe Ala Leu Ile 550 Ala His Trp Leu Ala Cys Ile Trp Tyr Ala Ile Gly Asn Met Glu Gln 570 Pro His Met Asp Ser Arg Ile Gly Trp Leu His Asn Leu Gly Asp Gln 580 585 Ile Gly Lys Pro Tyr Asn Ser Ser Gly Leu Gly Gly Pro Ser Ile Lys 600

Asp Lys Tyr Val Thr Ala Leu Tyr Phe Thr Phe Ser Ser Leu Thr Ser 615 Val Gly Phe Gly Asn Val Ser Pro Asn Thr Asn Ser Glu Lys Ile Phe 635 Ser Ile Cys Val Met Leu Ile Gly Ser Leu Met Tyr Ala Ser Ile Phe Gly Asn Val Ser Ala Ile Ile Gln Arg Leu Tyr Ser Gly Thr Ala Arg Tyr His Thr Gln Met Leu Arg Val Arg Glu Phe Ile Arg Phe His Gln 680 Ile Pro Asn Pro Leu Arg Gln Arg Leu Glu Glu Tyr Phe Gln His Ala Trp Ser Tyr Thr Asn Gly Ile Asp Met Asn Ala Val Leu Lys Gly Phe Pro Glu Cys Leu Gln Ala Asp Ile Cys Leu His Leu Asn Arg Ser Leu Leu Gln His Cys Lys Pro Phe Arg Gly Ala Thr Lys Gly Cys Leu Arg Ala Leu Ala Met Lys Phe Lys Thr Thr His Ala Pro Pro Gly Asp Thr 760 Leu Val His Ala Gly Asp Leu Leu Thr Ala Leu Tyr Phe Ile Ser Arg Gly Ser Ile Glu Ile Leu Arg Gly Asp Val Val Ala Ile Leu Gly 790 795 Lys Asn Asp Ile Phe Gly Glu Pro Leu Asn Leu Tyr Ala Arg Pro Gly 810 Lys Ser Asn Gly Asp Val Arg Ala Leu Thr Tyr Cys Asp Leu His Lys Ile His Arg Asp Asp Leu Leu Glu Val Leu Asp Met Tyr Pro Glu Phe 840 Ser Asp His Phe Trp Ser Ser Leu Glu Ile Thr Phe Asn Leu Arg Asp 850 Thr Asn Met Ile Pro Gly Ser Pro Gly Ser Thr Glu Leu Glu Gly Gly 875 Phe Ser Arg Gln Arg Lys Arg Lys Leu Ser Phe Arg Arg Arg Thr Asp 890 Lys Asp Thr Glu Gln Pro Gly Glu Val Ser Ala Leu Gly Pro Gly Arg Ala Gly Ala Gly Pro Ser Ser Arg Gly Arg Pro Gly Gly Pro Trp Gly Glu Ser Pro Ser Ser Gly Pro Ser Ser Pro Glu Ser Ser Glu Asp Glu 935 Gly Pro Gly Arg Ser Ser Pro Leu Arg Leu Val Pro Phe Ser Ser

945					950					955					900	
Pro	Arg	Pro	Pro	Gly 965	Glu	Pro	Pro	Gly	Gly 970	Glu	Pro	Leu	Met	Glu 975	Asp	
Cys	Glu	Lys	Ser 980	Ser	Asp	Thr	Cys	Asn 985	Pro	Leu	Ser	Gly	Ala 990	Phe	Ser	
Gly ·	Val	Ser 995	Asn	Ile	Phe		Phe 1000	Trp	Gly	Asp		Arg L005	Gly	Arg	Gln	
-	Gln .010	Glu	Leu	Pro	-	Cys 1015	Pro	Ala	Pro		Pro LO20	Ser	Leu	Leu	Asn	
Ile 1025		Leu	Ser		Pro LO30	Gly	Arg	Arg		Arg L035	Gly	Asp	Val		Ser L040	
Arg	Leu	Asp		Leu 1045	Gln	Arg	Gln		Asn L050	Arg	Leu	Glu		Arg 1055	Leu	
Ser	Ala	Asp 1	Met 1060	Ala	Thr	Val		Gln L065	Leu	Leu	Gln		Gln 1070	Met	Thr	
Leu		Pro 1075	Pro	Ala	Tyr		Ala 1080	Val	Thr	Thr		Gly L085	Pro	Gly	Pro	
	Ser .090	Thr	Ser	Pro		Leu 1095	Pro	Val	Ser		Leu L100	Pro	Thr	Leu	Thr	
Leu 1105	_	Ser	Leu		Gln 1110	Val	Ser	Gln		Met 1115	Ala	Cys	Glu		Leu L120	
Pro	Pro	Gly		Pro 1125	Glu	Leu	Pro		Glu 130	Gly	Pro	Thr		Arg L135	Leu	
Ser	Leu	Pro 1	Gly .140	Gln	Leu	Gly		Leu 1145	Thr	Ser	Gln		Leu 150	His	Arg	
His		Ser 1155	Asp	Pro	Gly	Ser										,
<212	.> 39 !> DN		sapie	ens												
	.> CE	os 57)	(354	13)												
<400 agcc		gc t	gggc	ccggg	ge eg	gggco	sgggg	g tgg	ggtgg	3999	ccc	accci	ggc (	cgccc	catggg	60
ctca		atg c Met F														108
		acc Thr														156
		aac												aac		204

35 40 45

				33					40					33		
							tac Tyr									252
							cac His 70									300
							ctg Leu									348
gaa Glu 95	atc Ile	gcc Ala	ttc Phe	tac Tyr	cgg Arg 100	aaa Lys	gat Asp	gly ggg	agc Ser	tgc Cys 105	ttc Phe	cta Leu	tgt Cys	ctg Leu	gtg Val 110	396
gat Asp	gtg Val	gtg Val	ccc Pro	gtg Val 115	aag Lys	aac Asn	gag Glu	gat Asp	ggg Gly 120	gct Ala	gtc Val	atc Ile	atg Met	ttc Phe 125	atc Ile	444
							gag Glu									492
cat His	gac Asp	acc Thr 145	aac Asn	cac His	cgg Arg	ggc Gly	ccc Pro 150	ccc Pro	acc Thr	agc Ser	tgg Trp	ctg Leu 155	gcc Ala	cca Pro	ggc Gly	540
						Leu	aag Lys									588
gcc Ala 175	cgg Arg	gag Glu	tcg Ser	tcg Ser	gtg Val 180	cgg Arg	tcg Ser	ggc Gly	ggc Gly	gcg Ala 185	ggc Gly	ggc Gly	gcg Ala	ggc Gly	gcc Ala 190	636 <sup>,</sup>
ccg Pro	ggg Gly	gcc Ala	gtg Val	gtg Val 195	gtg Val	gac Asp	gtg Val	gac Asp	ctg Leu 200	acg Thr	ccc Pro	gcg Ala	gca Ala	ccc Pro 205	agc Ser	684
							gaa Glu									732
gca Ala	ggg Gly	ctc Leu 225	ggg Gly	ccc Pro	gcg Ala	gag Glu	gag Glu 230	cgg Arg	cgt Arg	gcg Ala	ctg Leu	gtg Val 235	ggt Gly	ccc Pro	ggc Gly	780
tct Ser	ccg Pro 240	ccc Pro	cgc Arg	agc Ser	gcg Ala	ccc Pro 245	ggc Gly	cag Gln	ctc Leu	cca Pro	tcg Ser 250	ccc Pro	cgg Arg	gcg Ala	cac His	828
							ggc Gly									876
							agc Ser									924
gac Asp	atc Ile	gag Glu	gcc Ala	atg Met	cgc Arg	gcc Ala	ggg Gly	gtg Val	ctg Leu	ccc Pro	ccg Pro	cca Pro	ccg Pro	cgc Arg	cac His	972

290 295 300 gcc agc acc ggg gcc atg cac cca ctg cgc agc ggc ttg ctc aac tcc 1020 Ala Ser Thr Gly Ala Met His Pro Leu Arg Ser Gly Leu Leu Asn Ser 305 310 acc teg gae tee gae ete gtg ege tac ege acc att age aag att eee 1068 Thr Ser Asp Ser Asp Leu Val Arg Tyr Arg Thr Ile Ser Lys Ile Pro caa atc acc ctc aac ttt gtg gac ctc aag ggc gac ccc ttc ttg gct 1116 Gln Ile Thr Leu Asn Phe Val Asp Leu Lys Gly Asp Pro Phe Leu Ala 340 345 tcg ccc acc agt gac cgt gag atc ata gca cct aag ata aag gag cga 1164 Ser Pro Thr Ser Asp Arg Glu Ile Ile Ala Pro Lys Ile Lys Glu Arg 355 360 1212 acc cac aat gtc act gag aag gtc acc cag gtc ctg tcc ctg ggc gcc Thr His Asn Val Thr Glu Lys Val Thr Gln Val Leu Ser Leu Gly Ala 370 375 380 gac gtg ctg cct gag tac aag ctg cag gca ccg cgc atc cac cgc tgg 1260 Asp Val Leu Pro Glu Tyr Lys Leu Gln Ala Pro Arg Ile His Arg Trp 390 acc atc ctg cat tac agc ccc ttc aag gcc gtg tgg gac tgg ctc atc 1308 Thr Ile Leu His Tyr Ser Pro Phe Lys Ala Val Trp Asp Trp Leu Ile 405 410 ctg ctg ctg gtc atc tac acg gct gtc ttc aca ccc tac tcg gct gcc 1356 Leu Leu Val Ile Tyr Thr Ala Val Phe Thr Pro Tyr Ser Ala Ala 420 ttc ctg ctg aag gag acg gaa gac gcc ccc cct gct acc gag tgt ggc 1404 Phe Leu Leu Lys Glu Thr Glu Glu Gly Pro Pro Ala Thr Glu Cys Gly 440 4.35 tac gcc tgc cag ccg ctg gct gtg gac ctc atc gtg gac atc atg 1452 Tyr Ala Cys Gln Pro Leu Ala Val Val Asp Leu Ile Val Asp Ile Met 450 ttc att gtg gac atc ctc atc aac ttc cgc acc acc tac gtc aat gcc 1500 Phe Ile Val Asp Ile Leu Ile Asn Phe Arg Thr Thr Tyr Val Asn Ala 465 470 475 aac gag gag gtg gtc agc cac ccc ggc cgc atc gcc gtc cac tac ttc 1548 Asn Glu Glu Val Val Ser His Pro Gly Arg Ile Ala Val His Tyr Phe 480 aag ggc tgg ttc ctc atc gac atg gtg gcc gcc atc ccc ttc gac ctg Lys Gly Trp Phe Leu Ile Asp Met Val Ala Ala Ile Pro Phe Asp Leu 1596 495 500 505 510 ctc atc ttc ggc tct ggc tct gag gag ctg atc ggg ctg ctg aag act 1644 Leu Ile Phe Gly Ser Gly Ser Glu Glu Leu Ile Gly Leu Leu Lys Thr 1692 gcg cgg ctg ctg cgg ctg gtg cgc gtg gcg cgg aag ctg gat cgc tac Ala Arg Leu Leu Arg Leu Val Arg Val Ala Arg Lys Leu Asp Arg Tyr 530 535 tca gag tac ggc gcg gcc gtg ctg ttc ttg ctc atg tgc acc ttt gcg 1740 Ser Glu Tyr Gly Ala Ala Val Leu Phe Leu Leu Met Cys Thr Phe Ala

545 550 555 1788 ctc atc gcg cac tgg cta gcc tgc atc tgg tac gcc atc ggc aac atg Leu Ile Ala His Trp Leu Ala Cys Ile Trp Tyr Ala Ile Gly Asn Met 560 565 gag cag cca cac atg gac tca cgc atc ggc tgg ctg cac aac ctg ggc 1836 Glu Gln Pro His Met Asp Ser Arg Ile Gly Trp Leu His Asn Leu Gly 580 gac cag ata ggc aaa ccc tac aac agc agc ggc ctg ggc ggc ccc tcc 1884 Asp Gln Ile Gly Lys Pro Tyr Asn Ser Ser Gly Leu Gly Gly Pro Ser 595 600 atc aag gac aag tat gtg acg gcg ctc tac ttc acc ttc agc agc ctc 1932 Ile Lys Asp Lys Tyr Val Thr Ala Leu Tyr Phe Thr Phe Ser Ser Leu 615 acc agt gtg ggc ttc ggc aac gtc tct ccc aac acc aac tca gag aag Thr Ser Val Gly Phe Gly Asn Val Ser Pro Asn Thr Asn Ser Glu Lys 1980 625 630 atc ttc tcc atc tgc gtc atg ctc att ggc tcc ctc atg tat gct agc 2028 Ile Phe Ser Ile Cys Val Met Leu Ile Gly Ser Leu Met Tyr Ala Ser atc ttc ggc aac gtg tcg gcc atc atc cag cgg ctg tac tcg ggc aca Ile Phe Gly Asn Val Ser Ala Ile Ile Gln Arg Leu Tyr Ser Gly Thr 2076 660 665 2124 qcc cqc tac cac aca cag atg ctg cgg gtg cgg gag ttc atc cgc ttc Ala Arg Tyr His Thr Gln Met Leu Arg Val Arg Glu Phe Ile Arg Phe 680 cac cag atc ccc aat ccc ctg cgc cag cgc ctc gag gag tac ttc cag 2172 His Gln Ile Pro Asn Pro Leu Arg Gln Arg Leu Glu Glu Tyr Phe Gln 695 690 2220 cac gcc tgg tcc tac acc aac ggc atc gac atg aac gcg gtg ctg aag His Ala Trp Ser Tyr Thr Asn Gly Ile Asp Met Asn Ala Val Leu Lys 705 710 ggc ttc cct gag tgc ctg cag gct gac atc tgc ctg cac ctg aac cgc 2268 Gly Phe Pro Glu Cys Leu Gln Ala Asp Ile Cys Leu His Leu Asn Arg 720 tca ctq ctq cag cac tqc aaa ccc ttc cqa qqq qcc acc aag qqc tqc 2316 Ser Leu Leu Gln His Cys Lys Pro Phe Arg Gly Ala Thr Lys Gly Cys 740 735 ctt cgg gcc ctg gcc atg aag ttc aag acc aca cat gca ccg cca ggg 2364 Leu Arg Ala Leu Ala Met Lys Phe Lys Thr Thr His Ala Pro Pro Gly 755 760 gac aca ctg gtg cat gct ggg gac ctg ctc acc gcc ctg tac ttc atc 2412 Asp Thr Leu Val His Ala Gly Asp Leu Leu Thr Ala Leu Tyr Phe Ile tee egg gge tee ate gag ate etg egg gge gae gte gte gtg gee ate 2460 Ser Arg Gly Ser Ile Glu Ile Leu Arg Gly Asp Val Val Ala Ile ctg ggg aag aat gac atc ttt ggg gag cct ctg aac ctg tat gca agg Leu Gly Lys Asn Asp Ile Phe Gly Glu Pro Leu Asn Leu Tyr Ala Arg

	800					805					810					
cct Pro 815	ggc Gly	aag Lys	tcg Ser	aac Asn	ggg Gly 820	gat Asp	gtg Val	cgg Arg	gcc Ala	ctc Leu 825	acc Thr	tac Tyr	tgt Cys	gac Asp	cta Leu 830	2556
cac His	aag Lys	atc Ile	cat His	cgg Arg 835	gac Asp	gac Asp	ctg Leu	ctg Leu	gag Glu 840	gtg Val	ctg Leu	gac Asp	atg Met	tac Tyr 845	cct Pro	2604
gag Glu	ttc Phe	tcc Ser	gac Asp 850	cac His	ttc Phe	tgg Trp	tcc Ser	agc Ser 855	ctg Leu	gag Glu	atc Ile	acc Thr	ttc Phe 860	aac Asn	ctg Leu	2652
cga Arg	gat Asp	acc Thr 865	aac Asn	atg Met	atc Ile	ccg Pro	ggc Gly 870	tcc Ser	ccc Pro	ggc Gly	agt Ser	acg Thr 875	gag Glu	tta Leu	gag Glu	2700
ggt Gly	ggc Gly 880	ttc Phe	agt Ser	cgg Arg	caa Gln	cgc Arg 885	aag Lys	cgc Arg	aag Lys	ttg Leu	tcc Ser 890	ttc Phe	cgc Arg	agg Arg	cgc Arg	2748
	gac Asp															2796
ggc Gly	cgg Arg	gcg Ala	ggg Gly	gca Ala 915	ggg Gly	ccg Pro	agt Ser	agc Ser	cgg Arg 920	ggc Gly	cgg Arg	ccg Pro	ggg Gly	ggg Gly 925	ccg Pro	2844
tgg Trp	ggg Gly	gag Glu	agc Ser 930	ccg Pro	tcc Ser	agt Ser	ggc Gly	ccc Pro 935	tcc Ser	agc Ser	cct Pro	gag Glu	agc Ser 940	agt Ser	gag Glu	2892
gat Asp	gag Glu	ggc Gly 945	cca Pro	ggc Gly	cgc Arg	agc Ser	tcc Ser 950	agc Ser	ccc Pro	ctc Leu	cgc Arg	ctg Leu 955	gtg Val	ccc Pro	ttc Phe	2940
	agc Ser 960				Pro											2988
gag Glu 975	gac Asp	tgc Cys	gag Glu	aag Lys	agc Ser 980	agc Ser	gac Asp	act Thr	Cys	aac Asn 985	Pro	ctg Leu	tca Ser	ggc Gly	gcc Ala 990	3036
	tca Ser							Ser					Ser			3084
	cag Gln	Tyr					Arg					Thr				3132
	aac Asn					Ser					Pro					3180
Glu	agc Ser 1040				Āla					Leu						3228
	ctg Leu															3276

1055	1060	1065	1070	
Met Thr Leu Val			acc acc ccg ggg cct Thr Thr Pro Gly Pro 1085	
			agc ccc ctc ccc acc Ser Pro Leu Pro Thi 1100	
ctc acc ttg gac Leu Thr Leu Asp 1105	tcg ctt tct ca Ser Leu Ser Gl 111	n Val Ser Gln	ttc atg gcg tgt gag Phe Met Ala Cys Glu 1115	g 3420 a
gag ctg ccc ccg Glu Leu Pro Pro 1120	ggg gcc cca ga Gly Ala Pro Gl 1125	u Leu Pro Gln	gaa ggc ccc aca cga Glu Gly Pro Thr Arc 130	a 3468
cgc ctc tcc cta Arg Leu Ser Leu 1135	ccg ggc cag ct Pro Gly Gln Le 1140	g ggg gcc ctc u Gly Ala Leu 1145	acc tcc cag ccc ctc Thr Ser Gln Pro Let 1150	ו
cac aga cac ggc His Arg His Gly	tcg gac ccg gg Ser Asp Pro Gl 1155	c agt tagtgggg y Ser	get geceagtgtg	3563
gacacgtggc tcac	ccaggg atcaaggc	gc tgctgggccg	ctcccttgg aggccct	gct 3623
caggaggccc tgac	cgtgga aggggaga	gg aactcgaaag	cacagetest eccesage	ccc 3683
ttgggaccat cttc	tcctgc agtcccct	gg gccccagtga	gaggggcagg ggcaggg	ccg 3743
gcagtaggtg gggc	ctgtgg tccccca	ct gccctgaggg	cattagctgg tctaactq	gcc 3803
cggaggcacc cggc	cctggg ccttaggc	ac ctcaaggact	tttctgctat ttactgct	tct 3863
tattgttaag gata	ataatt aaggatca	ta tgaataatta	atgaagatgc tgatgact	tat 3923
gaataataaa taat	tatcct gaggaga			3950
<210> 4 <211> 1159 <212> PRT <213> Homo sapid	ens			
<400> 4 Met Pro Val Arg 1	Arg Gly His Va 5	l Ala Pro Gln 10	Asn Thr Phe Leu Asp	Þ
Thr Ile Ile Arg 20	Lys Phe Glu Gl	y Gln Ser Arg 25	Lys Phe Ile Ile Ala	a
Asn Ala Arg Val 35	Glu Asn Cys Al	_	Cys Asn Asp Gly Phe	Э
Cys Glu Leu Cys 50	Gly Tyr Ser Ar 55	g Ala Glu Val	Met Gln Arg Pro Cys	5
Thr Cys Asp Phe 65	Leu His Gly Pr 70	o Arg Thr Gln 75	Arg Arg Ala Ala Ala 80	_
Gln Ile Ala Gln	Ala Leu Leu Gl 85	y Ala Glu Glu 90	Arg Lys Val Glu Ile 95	Э

Ala Phe Tyr Arg Lys Asp Gly Ser Cys Phe Leu Cys Leu Val Asp Val 105 Val Pro Val Lys Asn Glu Asp Gly Ala Val Ile Met Phe Ile Leu Asn Phe Glu Val Val Met Glu Lys Asp Met Val Gly Ser Pro Ala His Asp Thr Asn His Arg Gly Pro Pro Thr Ser Trp Leu Ala Pro Gly Arg Ala Lys Thr Phe Arg Leu Lys Leu Pro Ala Leu Leu Ala Leu Thr Ala Arg 170 Glu Ser Ser Val Arg Ser Gly Gly Ala Gly Gly Ala Gly Ala Pro Gly Ala Val Val Asp Val Asp Leu Thr Pro Ala Ala Pro Ser Ser Glu 200 Ser Leu Ala Leu Asp Glu Val Thr Ala Met Asp Asn His Val Ala Gly Leu Gly Pro Ala Glu Glu Arg Arg Ala Leu Val Gly Pro Gly Ser Pro 230 Pro Arg Ser Ala Pro Gly Gln Leu Pro Ser Pro Arg Ala His Ser Leu 250 Asn Pro Asp Ala Ser Gly Ser Ser Cys Ser Leu Ala Arg Thr Arg Ser Arg Glu Ser Cys Ala Ser Val Arg Arg Ala Ser Ser Ala Asp Asp Ile Glu Ala Met Arg Ala Gly Val Leu Pro Pro Pro Pro Arg His Ala Ser Thr Gly Ala Met His Pro Leu Arg Ser Gly Leu Leu Asn Ser Thr Ser 315 310 Asp Ser Asp Leu Val Arg Tyr Arg Thr Ile Ser Lys Ile Pro Gln Ile 330 Thr Leu Asn Phe Val Asp Leu Lys Gly Asp Pro Phe Leu Ala Ser Pro Thr Ser Asp Arg Glu Ile Ile Ala Pro Lys Ile Lys Glu Arg Thr His ·360 Asn Val Thr Glu Lys Val Thr Gln Val Leu Ser Leu Gly Ala Asp Val 375 370 Leu Pro Glu Tyr Lys Leu Gln Ala Pro Arg Ile His Arg Trp Thr Ile 395 Leu His Tyr Ser Pro Phe Lys Ala Val Trp Asp Trp Leu Ile Leu Leu 410 Leu Val Ile Tyr Thr Ala Val Phe Thr Pro Tyr Ser Ala Ala Phe Leu Leu Lys Glu Thr Glu Glu Gly Pro Pro Ala Thr Glu Cys Gly Tyr Ala

445 435 440 Cys Gln Pro Leu Ala Val Val Asp Leu Ile Val Asp Ile Met Phe Ile 455 460 Val Asp Ile Leu Ile Asn Phe Arg Thr Thr Tyr Val Asn Ala Asn Glu Glu Val Val Ser His Pro Gly Arg Ile Ala Val His Tyr Phe Lys Gly 490 Trp Phe Leu Ile Asp Met Val Ala Ala Ile Pro Phe Asp Leu Leu Ile 505 Phe Gly Ser Gly Ser Glu Glu Leu Ile Gly Leu Leu Lys Thr Ala Arg Leu Leu Arg Leu Val Arg Val Ala Arg Lys Leu Asp Arg Tyr Ser Glu Tyr Gly Ala Ala Val Leu Phe Leu Leu Met Cys Thr Phe Ala Leu Ile 550 Ala His Trp Leu Ala Cys Ile Trp Tyr Ala Ile Gly Asn Met Glu Gln 570 Pro His Met Asp Ser Arg Ile Gly Trp Leu His Asn Leu Gly Asp Gln 580 585 Ile Gly Lys Pro Tyr Asn Ser Ser Gly Leu Gly Gly Pro Ser Ile Lys 600 Asp Lys Tyr Val Thr Ala Leu Tyr Phe Thr Phe Ser Ser Leu Thr Ser Val Gly Phe Gly Asn Val Ser Pro Asn Thr Asn Ser Glu Lys Ile Phe 630 635 Ser Ile Cys Val Met Leu Ile Gly Ser Leu Met Tyr Ala Ser Ile Phe 650 Gly Asn Val Ser Ala Ile Ile Gln Arg Leu Tyr Ser Gly Thr Ala Arg Tyr His Thr Gln Met Leu Arg Val Arg Glu Phe Ile Arg Phe His Gln 680 Ile Pro Asn Pro Leu Arg Gln Arg Leu Glu Glu Tyr Phe Gln His Ala Trp Ser Tyr Thr Asn Gly Ile Asp Met Asn Ala Val Leu Lys Gly Phe Pro Glu Cys Leu Gln Ala Asp Ile Cys Leu His Leu Asn Arg Ser Leu 730 Leu Gln His Cys Lys Pro Phe Arg Gly Ala Thr Lys Gly Cys Leu Arg Ala Leu Ala Met Lys Phe Lys Thr Thr His Ala Pro Pro Gly Asp Thr 760 Leu Val His Ala Gly Asp Leu Leu Thr Ala Leu Tyr Phe Ile Ser Arg Gly Ser Ile Glu Ile Leu Arg Gly Asp Val Val Ala Ile Leu Gly 790 Lys Asn Asp Ile Phe Gly Glu Pro Leu Asn Leu Tyr Ala Arg Pro Gly 810 Lys Ser Asn Gly Asp Val Arg Ala Leu Thr Tyr Cys Asp Leu His Lys Ile His Arg Asp Asp Leu Leu Glu Val Leu Asp Met Tyr Pro Glu Phe 840 Ser Asp His Phe Trp Ser Ser Leu Glu Ile Thr Phe Asn Leu Arg Asp 855 860 Thr Asn Met Ile Pro Gly Ser Pro Gly Ser Thr Glu Leu Glu Gly Gly 870 Phe Ser Arg Gln Arg Lys Arg Lys Leu Ser Phe Arg Arg Arg Thr Asp 890 Lys Asp Thr Glu Gln Pro Gly Glu Val Ser Ala Leu Gly Pro Gly Arg 905 Ala Gly Ala Gly Pro Ser Ser Arg Gly Arg Pro Gly Gly Pro Trp Gly Glu Ser Pro Ser Ser Gly Pro Ser Ser Pro Glu Ser Ser Glu Asp Glu 935 Gly Pro Gly Arg Ser Ser Pro Leu Arg Leu Val Pro Phe Ser Ser Pro Arg Pro Pro Gly Glu Pro Pro Gly Glu Pro Leu Met Glu Asp 970 Cys Glu Lys Ser Ser Asp Thr Cys Asn Pro Leu Ser Gly Ala Phe Ser 985 990 980 Gly Val Ser Asn Ile Phe Ser Phe Trp Gly Asp Ser Arg Gly Arg Gln Tyr Gln Glu Leu Pro Arg Cys Pro Ala Pro Thr Pro Ser Leu Leu Asn 1015 Ile Pro Leu Ser Ser Pro Gly Arg Arg Pro Arg Gly Asp Val Glu Ser 1035 1030 1025 . . . . Arg Leu Asp Ala Leu Gln Arg Gln Leu Asn Arg Leu Glu Thr Arg Leu 1050 Ser Ala Asp Met Ala Thr Val Leu Gln Leu Gln Arg Gln Met Thr 1065 Leu Val Pro Pro Ala Tyr Ser Ala Val Thr Thr Pro Gly Pro Gly Pro 1080 Thr Ser Thr Ser Pro Leu Leu Pro Val Ser Pro Leu Pro Thr Leu Thr 1095 Leu Asp Ser Leu Ser Gln Val Ser Gln Phe Met Ala Cys Glu Glu Leu 1110 1115 Pro Pro Gly Ala Pro Glu Leu Pro Gln Glu Gly Pro Thr Arg Arg Leu

Ser Leu Pro Gly Gln Leu Gly Ala Leu Thr Ser Gln Pro Leu His Arg 1140 1145 1150	
His Gly Ser Asp Pro Gly Ser 1155	
<210> 5 <211> 63 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Hypothetical sequence for the example of calculating homology.	
<400>5 acceptageta egtaceptata tagaaaggge gegategteg tegegtatga egaettagea	60
tgc	63
<210> 6 <211> 130 <212> DNA <213> Artificial Sequence	
<220> <223> Description of Artificial Sequence: Hypothetical sequence for example of calculating homology.	
<400> 6 accggtagct acgtacgtta tttagaaagg ggtgtgtgtg tgtgtgtaaa ccggggtttt	60
cgggatcgtc cgtcgcgtat gacgacttag ccatgcacgg tatatcgtat taggactagc	120
gattgactag	130
<210> 7 <211> 20 <212> DNA <213> Homo sapiens	
<400> 7 gctgggccgc tccccttgga	20
<210> 8 <211> 20 <212> DNA <213> Homo sapiens	•
<400> 8 gcatcttcat taattattca	20
<210> 9 <211> 20 <212> DNA <213> Homo sapiens	

<400> 9 gacgtgctgc	ctgagtacaa						20
<210> 10 <211> 22 <212> DNA <213> Homo	sapiens						
<400> 10 ttcctgctga	aggagacgga	ag					22
<210> 11 <211> 21 <212> DNA <213> Homo	sapiens			-			
<400> 11 accacctacg	tcaatgccaa	c					21
<210> 12 <211> 21 <212> DNA <213> Homo	sapiens				•		
<400> 12 tgccccatca	acggaatgtg	C .					21
<210> 13 <211> 19 <212> DNA <213> Homo	sapiens		·				
<400> 13 gatcgctact	cagagtacg					*	19
<210> 14 <211> 22 <212> DNA <213> Homo	sapiens						
<400> 14 gcctgggcgg	cccctccatc	aa					22
<210> 15 <211> 21 <212> DNA <213> Homo	sapiens						
<400> 15 cacctcctcg	ttggcattga	С					21
<210> 16 <211> 25 <212> DNA <213> Homo	sapiens						
<400> 16							

gtcgaagggg	atggcggcca	ccatg	25
<210> 17 <211> 23 <212> DNA <213> Homo	sapiens		
<400> 17 tacaccacct	gcctccttgc	tga 2	23
<210> 18 <211> 21 <212> DNA <213> Homo	sapiens		
<400> 18 gccgcgccgt	actctgagta	g 2	21
<210> 19 <211> 23 <212> DNA <213> Homo	sapiens		
<400> 19 'cagccagccg	atgcgtgagt	cca	23
<210> 20 <211> 21 <212> DNA <213> Homo	sapiens		
<400> 20 gcccgcccct	gggcacactc	a 2	21
<210> 21 <211> 19 <212> DNA <213> Homo	sapiens		
<400> 21 cagcatctgt	gtgtggtag	1	19
<210> 22 <211> 19 <212> DNA <213> Homo	sapiens		
<400> 22 ggcatttcca	gtccagtgc	1	19
<210> 23 <211> 20 <212> DNA <213> Homo	sapiens		
<400> 23 cctggccatg	aagttcaaga		20

<210><211><211><212><212>	20 DNA	aniona				
<213>	ношо	sapiens	•			
<400> gcacto		cccttccgag				20
<210><211><211><212><213>	22 DNA	sapiens				
<400> gtcgga		tcagggtaca	tg			22
<210><211><211><212><213>	10 DNA	sapiens				
<400> atgcco						10
<210><211><211><212><213>	20 DNA	sapiens		,		
<400> gagggo		gtgagtgggg				20
<210><211><212><213>	20 DNA	sapiens			·	
<400> gcccc		gccgtaagtt				20
<210><211><211><212><213>	20 DNA	sapiens				
<400> cggaaa		gtaggagcgg				20
<210> <211> <212> <213>	20 DNA	sapiens			·	
<400> cactct		ggagctgctt				20

<210> 31 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 31 ctggccccag	gtaagtgtac .	20
<210> 32 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 32 tctcccgcag	gccgcgccaa	20
<210> 33 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 33 gccagcaccg	gtgagggcgc ,	20
<210> 34 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 34 ctccacctag	gggccatgca	20
<210> 35 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 35 ggtcacccag	gtaggcgccc	20
<210> 36 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 36 ccgggtgcag	gtcctgtccc	20
<210> 37 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 37 ctctgaggag	gtggggtcag	20

<210> 38

<211> 20 <212> DNA <213> Hom	o sapiens			
<400> 38 tgtccccca	g ctgatcgggc			20
<210> 39 <211> 20 <212> DNA <213> Hom	o sapiens			
<400> 39 ctcattggc	t gtgagtgtgc			20
<210> 40 <211> 20 <212> DNA <213> Hom	o sapiens			
<400> 40 acgccccca	g ccctcatgta			_ 20
<210> 41 <211> 20 <212> DNA <213> Hom	o sapiens			
<400> 41 catgaacgc	g gtgaggccac			20
<210> 42 <211> 20 <212> DNA <213> Hom	o sapiens	·		
<400> 42 ctgcccca	g gtgctgaagg			20
<210> 43 <211> 20 <212> DNA <213> Hom	o sapiens			
<400> 43 gccatcctg	g gtatggggtg			20
<210> 44 <211> 20 <212> DNA <213> Hom	o sapiens			
<400> 44 tggcctcca	g ggaagaatga			20
<210> 45				

<212> DNA <213> Homo	sapiens	
<400> 45 cctgcgagat	gtgagttggc	20
<210> 46 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 46 ttggttccag	accaacatga	20
<210> 47 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 47 acggacaagg	gtgaggcggg	20
<210> 48 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 48 tttcccacag	acacggagca	20
<210> 49 <211> 20 <212> DNA <213> Homo	sapiens ·	
<400> 49 cccctgtcag	gtatcccggg	20
<210> 50 <211> 20 <212> DNA <213> Homo	sapiens	•
<400> 50 ctggctgcag	gcgccttctc	20
<210> 51 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 51 agctcaacag	gtgagggagt	20
<210> 52 <211> 20 <212> DNA		

<213> Homo	sapiens	
<400> 52 cctgccccag	gctggagacc	20
<210> 53 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 53 gctttctcag	gtaagctcca	20
<210> 54 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 54 tgtáttgcag	gtttcccagt	20
<210> 55 <211> 10 <212> DNA <213> Homo	sapiens	
<400> 55 gggcagttag		10
<210> 56 <211> 19 <212> DNA <213> Homo	sapiens	
<400> 56 gggccacccg	aagcctagt	19
<210> 57 <211> 18 <212> DNA <213> Homo	sapiens	
<400> 57 ccgtcccctc	gccaaagc	18
<210> 58 <211> 17 <212> DNA <213> Homo	sapiens	
<400> 58 ccgcccatgg	gctcagg	17
<210> 59 <211> 20 <212> DNA <213> Homo	sapiens	

<400> 59 catccacact	cggaagagct	20
<210> 60 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 60 ggtcccgtca	cgcgcactct	20
<210> 61 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 61 ttgaccccgc	ccctggtcgt	20
<210> 62 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 62 gggctatgtc	ctccactct	20
<210> 63 <211> 22 <212> DNA <213> Homo	sapiens	
<400> 63 agcctgccct	aaagcaagta ca	22
<210> 64 <211> 19 <212> DNA <213> Homo	sapiens	
<400> 64 ctccggggct	gctcgggat	19
<210> 65 <211> 20 <212> DNA <213> Homo	sapiens	
<400> 65 caccagcgca	cgccgctcct	20
<210> 66 <211> 21 <212> DNA <213> Homo	sapiens	

gccatggaca	accacgtggc	a	21
<210> 67 <211> 20 <212> DNA <213> Homo	sapiens		
<400> 67 cccagaatgc	agcaagcctg		20
<210> 68 <211> 20 <212> DNA <213> Homo	sapiens		
<400> 68 ggcctgacca	cgctgcctct		; 20
<210> 69 <211> 20 <212> DNA <213> Homo	sapiens		
<400> 69 ccctctccaa	gctcctccaa		20
<210> 70 <211> 20 <212> DNA <213> Homo	sapiens		
<400> 70 cagagatgtc	atcgctcctg		20
<210> 71 <211> 22 <212> DNA <213> Homo	sapiens		
<400> 71 caggcgtagc	cacactcggt	ag	22
<210> 72 <211> 22 <212> DNA <213> Homo	sapiens		
<400> 72 ttcctgctga	aggagacgga	ag	22
<210> 73 <211> 23 <212> DNA <213> Homo	sapiens		
<400> 73 tacaccacct	gcctccttgc	tga	23

<210> 74 <211> 21 <212> DNA	aniona		
<213> Homo	sapiens		
<400> 74 tgccccatca	acggaatgtg	c	21
<210> 75 <211> 22 <212> DNA <213> Homo	sapiens		
<400> 75 gaagtagagc	gccgtcacat	ac	22
<210> 76 <211> 22 <212> DNA <213> Homo	sapiens		
<400> 76 gcctgggcgg	cccctccatc	aa	22
<210> 77 <211> 21 <212> DNA <213> Homo	sapiens		
<400> 77 agtttcctcc	aacttgggtt	c	21
<210> 78 <211> 19 <212> DNA <213> Homo	sapiens		
<400> 78 gcagaggctg	acggcccca	<del>-</del>	19
<210> 79 <211> 21 <212> DNA <213> Homo	sapiens		
<400> 79 acttgtttgc	tgtgccaaga	g 2	21
<210> 80 <211> 22 <212> DNA <213> Homo	sapiens		
<400> 80 atggtggagt	ggagtgtggg	tt :	22

<210> 81 <211> 21 <212> DNA <213> Homo	sapiens		
<400> 81 agaaggctcg	cacctcttga	g :	21
<210> 82 <211> 20 <212> DNA <213> Homo	sapiens		
<400> 82 gagaggtgcc	tgctgcctgg		20
<210> 83 <211> 21 <212> DNA <213> Homo	sapiens		
<400> 83 acagctggaa	gcaggaggat	g .	21
<210> 84 <211> 20 <212> DNA <213> Homo	sapiens		
<400> 84 gggccctgat	actgattttg	2	20
<210> 85 <211> 21 <212> DNA <213> Homo	sapiens		
<400> 85 gccctgtgaa	gtccaaaaag	c	21
<210> 86 <211> 20 <212> DNA <213> Homo	sapiens		
<400> 86 ccctgatact	gattttggtt		20
<210> 87 <211> 19 <212> DNA <213> Homo	sapiens		
<400> 87 caccccgcct	tccagctcc		19
<210> 88			

<211> 21 <212> DNA <213> Homo sapie	ns		
<400> 88 tgaggcccat tctct	gtttc c		21
<210> 89 <211> 21 <212> DNA <213> Homo sapie	ns		
<400> 89 gtagacgcac cáccg	ctgcc a		21
<210> 90 <211> 21 <212> DNA <213> Homo sapie	ns		
<400> 90 ctcacccagc tctgc	tctct g		21
<210> 91 <211> 21 <212> DNA <213> Homo sapie	ns		
<400> 91 caccaggacc tggac	cagac t		21
<210> 92 <211> 20 <212> DNA <213> Homo sapie	ns		
<400> 92 gtggaggctg tcact	ggtgt		20
<210> 93 <211> 21 <212> DNA <213> Homo sapie	ns		
<400> 93 gaggaagcag ggctg	gagct t		21
<210> 94 <211> 22 <212> DNA <213> Homo sapie:	ns		
<400> 94 tgcccatgct ctgtg	tgtat tg		22
<210> 95 <211> 21	·		

```
<212> DNA
<213> Homo sapiens
<400> 95
                                                                   21
cggcccagca gcgccttgat c
<210> 96
<211> 45
<212> DNA
<213> Homo sapiens
<400> 96
                                                                   45
tggttcctca tcgacatggt ggccgccatc cccttcgacc tgctc
<210> 97
<211> 15
<212> PRT
<213> Homo sapiens
<400> 97
Trp Phe Leu Ile Asp Met Val Ala Ala Ile Pro Phe Asp Leu Leu
<210> 98
<211> 54
<212> DNA
<213> Homo sapiens
<400> 98
qtcatctaca cqqctqtctt cacaccctac tcqqctqcct tcctqctqaa ggag
<210> 99
<211> 18
<212> PRT
<213> Homo sapiens
<400> 99
Val Ile Tyr Thr Ala Val Phe Thr Pro Tyr Ser Ala Ala Phe Leu Leu
                  5
                                     10
Lys Glu
<210> 100
<211> 48
<212> DNA
<213> Homo sapiens
<400> 100
gtcatctacc ggctgtcttc acaccctact cggctgcctt cctgctga
                                                                   48
<210> 101
<211> 15
<212> PRT
<213> Homo sapiens
<400> 101
Val Ile Tyr Arg Leu Ser Ser His Pro Thr Arg Leu Pro Ser Cys
```

1 5 10 15

```
<210> 102
<211> 6
<212> PRT
<213> Homo sapiens
<400> 102
Leu Ile Ala His Trp Leu
<210> 103
<211> 6
<212> PRT
<213> Homo sapiens
<400> 103
Leu Ile Val His Trp Leu
<210> 104
<211> 6
<212> PRT
<213> Mus musculus
<400> 104
Leu Ala Ala His Trp Lys
 1
<210> 105
<211> 6
<212> PRT
<213> Rattus rattus
<400> 105
Leu Ala Ala His Trp Met
<210> 106
<211> 6
<212> PRT
<213> Drosophila melanogaster
<400> 106
Leu Val Ala His Trp Leu
<210> 107
<211> 6
<212> PRT
<213> Unknown
<223> Description of Unknown Organism: See Warmke and
      Ganetzky, 1994.
<400> 107
```

Leu Ala Ala His Trp Leu

```
1
                  5
<210> 108
<211> 7
<212> PRT
<213> Homo sapiens
<400> 108
Asp Ile Leu Ile Asn Phe Arg
<210> 109
<211> 7
<212> PRT
<213> Homo sapiens
<400> 109
Asp Ile Leu Ile Asp Phe Arg
<210> 110
<211> 7
<212> PRT
<213> Drosophila melanogaster
<400> 110
Asp Ile Val Leu Asn Phe His
 1
<210> 111
<211> 7
<212> PRT
<213> Unknown
<220>
<223> Description of Unknown Organism: See Warmke and
      Ganetzky, 1994.
<400> 111
Asp Ile Leu Leu Asn Phe Arg
<210> 112
<211> 8
<212> PRT
<213> Homo sapiens
<400> 112
Ser Val Gly Phe Gly Asn Val Ser
1
<210> 113
<211> 8
<212> PRT
<213> Homo sapiens
<400> 113
```

Ser Val Gly Phe Ser Asn Val Ser

Thr Val Gly Tyr Gly Asp Met Thr 1 5